Rationale for Urine Drug Testing (UDT)

Help to identify drug misuse/addiction

- Prior to starting opioid treatment

Assist in assessing adherence during opioid therapy

- As requirement of therapy w/ an opioid
- Support decision to refer

UDT frequency is based on clinical judgment

Depending on patient's display of aberrant behavior and whether it is sufficient to document adherence to treatment plan

Check state regulations for requirements

Main Types of UDT Methods

Initial testing w/ IA drug panels:

- Classify substance as present or absent according to cutoff
- Many do not identify individual drugs within a class
- Subject to cross-reactivity
- Either lab based or at POC

Identify specific drugs &/or metabolites w/ sophisticated lab-based testing; e.g., GC/MS or LC/MS*

- Specifically confirm the presence of a given drug
  - e.g., morphine is the opiate causing a positive IA*
- Identify drugs not included in IA tests
- When results are contested

*** GC/MS=gas chromatography/ mass spectrometry IA=immunoassay**
LC/MS=liquid chromatography/ mass spectrometry

Detecting Opioids by UDT

Most common opiate IA drug panels

Detect "opiates" morphine & codeine, but doesn't distinguish

Do not reliably detect semisynthetic opioids → Specific IA panels can be ordered for some

Do not detect synthetic opioids (e.g., methadone, fentanyl) → Only a specifically directed IA panel will detect synthetics

GC/MS or LC/MS will identify specific opioids

Confirm presence of a drug causing a positive IA

Identify opioids not included in IA drug panels, including semisynthetic & synthetic opioids

Lab can identify specific opioids at physician request

Interpretation of UDT Results

Positive result

Demonstrates recent use

- Most drugs in urine have detection times of 1-3 d
- Chronic use of lipid-soluble drugs: test positive for ≥1 wk

Does not diagnose

- Drug addiction, physical dependence, or impairment

Does not provide enough information to determine

- Exposure time, dose, or frequency of use

Negative result

Does not diagnose diversion

- More complex than presence or absence of a drug in urine

May be due to maladaptive drug-taking behavior

- Bingeing, running out early
- Other factors: e.g., cessation of insurance, financial difficulties

Interpretation of UDT Results, cont'd

Be aware

Testing technologies & methodologies evolve

Differences exist between IA test menu panels vary

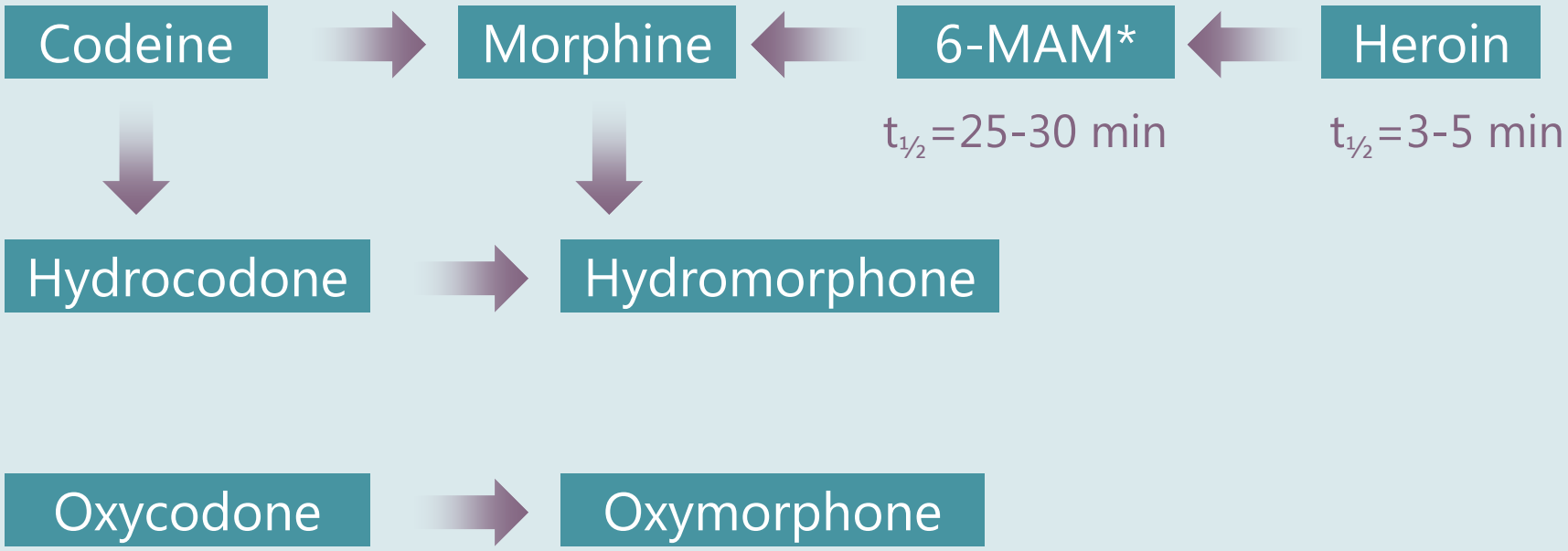
- Cross-reactivity patterns
  - Maintain list of all patient's prescribed & OTC drugs
    - Assist to identify false-positive result
- Cutoff levels

Time taken to eliminate drugs

- Document time of last use & quantity of drug(s) taken

Opioid metabolism may explain presence of apparently unprescribed drugs

Examples of Metabolism of Opioids



Not comprehensive pathways, but may explain presence of apparently unprescribed drugs

*6-MAM=6-monoacetylmorphine

Interpretation of UDT Results

Use UDT results in conjunction w/ other clinical information

Investigate unexpected results

- Discuss w/ the lab
- Schedule appointment w/ patient to discuss unexpected/abnormal results

Chart results, interpretation, & action

Do not ignore the *unexpected* positive result

- May necessitate closer monitoring &/or referral to a specialist

Gourlay DL, et al. *Urine Drug Testing in Clinical Practice. The Art & Science of Patient Care.* Ed 4. 2010.

Be Ready to Refer

Be familiar w/ referral sources for abuse or addiction that may arise from use of ER/LA opioids

SAMHSA substance abuse treatment facility locator

http://findtreatment.samhsa.gov/TreatmentLocator/faces/quickSearch.jspx

SAMHSA mental health treatment facility locator

http://findtreatment.samhsa.gov/MHTreatmentLocator/faces/quickSearch.jspx